

**● PRINTER RUSH ●**  
**(PTO ASSISTANCE)**

Application : <u>10/043473</u>	Examiner : <u>Phan</u>	GAU : <u>2128</u>
From: <u>PAP</u>	Location: <u>(IDC) FMF FDC</u>	Date: <u>4/1/05</u>
Tracking #: <u>06086903</u>		Week Date: <u>3/14/05</u>

DOC CODE	DOC DATE	MISCELLANEOUS
<input type="checkbox"/> 1449	<hr/>	<input type="checkbox"/> Continuing Data
<input type="checkbox"/> IDS	<hr/>	<input type="checkbox"/> Foreign Priority
<input checked="" type="checkbox"/> CLM	<u>11/10/2002</u>	<input type="checkbox"/> Document Legibility
<input type="checkbox"/> IIFW	<hr/>	<input type="checkbox"/> Fees
<input type="checkbox"/> SRFW	<hr/>	<input type="checkbox"/> Other
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<input type="checkbox"/> OATH	<hr/>	
<input type="checkbox"/> 312	<hr/>	
<input type="checkbox"/> SPEC	<hr/>	

[RUSH] MESSAGE: Original claim 15 does not end with a period. Is there missing data?

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Thank you

[XRUSH] RESPONSE: <u>A</u>	INITIALS: <u>JH</u>
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NOTE: This form will be included as part of the official USPTO record, with the Response document coded as XRUSH.

REV 10/04

set of moves for present and future times further comprises calculating said set of moves such that said uncontrolled variable is limited to a predetermined constraint.

10. The method of claim 4, wherein said step of calculating said set of moves for present and future times comprises calculating said set of moves employing linear programming techniques.
11. The method of claim 10, wherein said step of calculating said set of moves for present and future times further comprises calculating said set of moves such that at least one of said manipulated variables is limited to a predetermined constraint.
12. The method of claim 10, wherein said process comprises at least one uncontrolled variable that is dependent on said manipulated variables and wherein said step of calculating said set of moves for present and future times further comprises calculating said set of moves such that said uncontrolled variable is limited to a predetermined constraint.
13. The method of claim 4, wherein said step of calculating said set of moves further comprises calculating said set of moves such that at least one of said manipulated variables is limited to a predetermined constraint.
14. The method of claim 13, wherein said process comprises at least one uncontrolled variable that is dependent on said manipulated variables and wherein said step of calculating said set of moves for present and future times further comprises calculating said set of moves such that said uncontrolled variable is limited to a predetermined constraint.
15. A method for developing a new linearized dynamic model of a process without performing a new plant identification test when the tuning of at least one PID controller in said process is changed comprising the steps of:
  - interchanging said at least one PID controller set point variable in an original linearized dynamic model with its corresponding valve position controlled variable in said original linearized dynamic model using matrix row elimination mathematics to generate a secondary linearized dynamic model that has said at least one corresponding valve position as a new independently controllable, manipulated variable
  - externally emulating new desired PID tuning via mathematical emulator to emulate the effect of said at least one PID controllers new tuning with the secondary linearized dynamic model
  - testing the secondary linearized dynamic model with it's emulated PID tuning by stepping each of it's manipulated variables to obtain said new linearized dynamic model that will now contain the dynamics of said at least one PID controllers.
16. A method for creating an off-line process simulator for use in process simulation and for training simulators created by removing the effect of unmeasured disturbances from the